ABSTRACT OF THE DISCLOSURE

[0022] The invention provides a method to automatically create high quality computer-based drawings by eliminating text and graphics overwrites. This has broad practical application to a class of problems where drawings are created or updated from a non-graphic database. This is achieved through the representation of graphics as a set of bitmap images. As graphic elements are placed onto a drawing plane they contribute to the composition of a drawing's 'committed' bitmap. The proposed addition of new graphic elements onto the drawing plane is represented by a second 'tentative' bitmap. The white space algorithm uses efficient logical AND and logical OR bit manipulations to track and compare these bitmap images and determine if white space is available for placement of the proposed new graphic elements. When acceptable space is located the proposed graphics are simultaneously added to the drawing plane and inserted into the drawing's 'committed' bitmap. The pixels in the 'committed' bitmap are turned ON and becomes more densely populated as additional graphics are placed. This process is repeated until all graphics elements have been added and the drawing is complete.